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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/727,534	11/28/2000	Paul Nadj	SIA-P035	9960

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EXAMINER

MAHMOUDI, HASSAN

ART UNIT	PAPER NUMBER
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2175

DATE MAILED: 11/18/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/727,534

Applicant(s)

NADJ ET AL.

Examiner

Tony Mahmoudi

Art Unit

2175

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003.
- 2a) ☒ This action is FINAL. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1,5 and 7 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,5 and 7 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2100

## DETAILED ACTION

### *Remarks*

1. In response to communications filed on 07-October-2003, claims 2-4 and 6 are cancelled, and claims 1 and 5 are amended per applicant's request. Therefore, claims 1, 5, and 7 are presently pending in the application.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 1, 5, and 7 are rejected under 35 U.S.C. 102(e) as being anticipated by Rathbun (U.S. Patent No. 6,138,123.)

Art Unit: 2175

As to claim 1, Rathbun teaches a method (see Abstract) to perform an add operation from a root to a leaf (see figures 4-8, and see column 6, lines 49-63, where “add operation” is read on “insert() function”), comprising the steps of:

in a data structure comprising a heap (see column 8, lines 37-40, and see column 36, lines 18-22), comprising:

identifying a root in the data structure (see column 14, lines 4-11);

identifying any unused leaf in the data structure (see column 26, lines 54-65, where “unused leaf” is read on “empty cell”); and

traversing from the root to the any unused leaf (see column 7, lines 4-22) in the data structure, the traversing step comprises the step of percolating values within the data structure from the root to any unused leaf, the traversing step comprises the step of not percolating values within the data structure from the root to any unused leaf, the percolating values comprising one or more holes (see column 16, line 23 through column 19, line 42; see column 26, lines 54-65; and see column 27, lines 40-59.)

As to claim 5, Rathbun teaches a method (see Abstract) for performing a remove operation in a data structure (see figures 9-10 and 27, and see column 6, lines 49-63, where “remove operation” is read on “remove() function”), comprising the steps of:

removing a value from a root that leaves a hole (see column 8, lines 1-10); and

percolating the hole to a leaf position (see column 8, lines 11-15, where “percolating the hole to a leaf position” is read on “re-ordering data structure”), wherein in the percolating step, comprising the step of percolating the hole to any arbitrary leaf position in the data

Art Unit: 2175

structure (see column 27, lines 52-56, where “arbitrary leaf position” is read on “any nodes which have their ranges wholly or partially dependent on G-node v.”)

As to claim 7, Rathbun teaches wherein the data structure comprises a treelike structure (see figures 1-2.)

### *Response to Arguments*

Applicant's arguments filed on 07-October-2003 with respect to the rejected claims 1 and 5, as amended, have been fully considered but are not found persuasive:

In response to applicant's argument that Rathbun's query “simply travels down the rightmost local link”, and that “claim 1 provides greater flexibility by traversing from the root to any unused leaf in the data structure”, the argument has been fully considered but is not found persuasive because Rathbun also traverses from the root to a leaf in the data structure (see column 7, lines 4-22.)

In response to applicant's argument that claim 5 recites “wherein in the percolating step, comprising the step of percolating the hole to any arbitrary leaf position in the data structure, the argument has been fully considered and cited in Rathbun's teachings (see column 27, lines 52-56, where “arbitrary leaf position” is read on “any nodes which have their ranges wholly or partially dependent on G-node v.”)

Art Unit: 2175

*Conclusion*

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

5. Any inquiries concerning this communication or earlier communications from the examiner should be directed to Tony Mahmoudi whose telephone number is (703) 305-4887. The examiner can normally be reached on Mondays-Fridays from 08:00 am to 04:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici, can be reached at (703) 305-3830.

tm

November 10, 2003

  
DOV POPOVICI  
SUPERVISORY PATENT EXAMINER  
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